

Ch. 8 Section 1

INTEREST & LOANS

1) Principal: -starting amount
• amt. of \$ you first deposit into an account.

2) Interest:
\$ earned/paid for the
use of someone else's \$
+ or -

FORMULA:

$$I = P \times R \times T$$

(years)

$$\frac{5}{12} \quad \frac{30}{365}$$

3) Single Payment Loan:

loan repaid in one lump payment

* not common

* low amounts of \$

* interest

4) Promissory Note:

* not common

~ note promising to pay
back \$ on certain day

5) Mature (the verb):

to grow, change

with \$: earns interest

6) Maturity Value:

total \$ you must repay

Formula: $\text{Principal} + \text{Interest}$

7) Term (of a loan):

amt. of time for which
the loan is granted.

8) Ordinary Interest:

based on a 360 day year

Formula:

$$I = P \times R \times \left(\frac{\text{time}}{360} \right)$$

9) Exact Interest:

365 day year

Formula:

$$I = P \times R \times \left(\frac{\text{time}}{365} \right)$$

EXAMPLES:

10) Anita's bank granted her a single payment loan of \$7,200 for 91 days at 12% ordinary interest. What is the maturity value of the loan?

STEP 1: Find the interest

$$I = 7200 \times 0.12 \times \left(\frac{91}{360}\right) \\ = \$218.40$$

STEP 2: Find the maturity value

Principal + Interest

$$\$7200 + 218.40 = \$7418.40$$

Complete the next 3 problems

① $I = \$20$ $M.V. = \$620$

② $\$84.22$ $\$3584.22$

③ $\$24$ $\$824$

12) Suppose Anita's bank granted her the same loan as before, but instead charged her exact interest? What is the maturity value of the loan?

STEP 1: Find the interest

$$I = 7200 \times 0.12 \times \left(\frac{91}{365}\right) = \$215.41$$

STEP 2: Find the maturity value

$$7200 + 215.41 = \$7415.41$$

Complete the next 3 examples

$$\textcircled{a} \quad \$19.73$$
$$\quad \$619.73$$

$$\textcircled{b} \quad \$83.07$$
$$\quad \$3583.07$$

$$\textcircled{c} \quad \$23.67$$
$$\quad \$823.67$$

14) Using your results from questions #10 -- 13, which type of interest is better for the borrower? For the bank? Why?

$$\left(\frac{\$}{365} \right)$$

exact
 $\div 365$

ordinary
 $\div 360$

15) Some people take loans from family members instead of banks. Why? How are they different?

- not paid in full
- not official
- no interest

Complete the book problems and check your answers.